

...rinsed in MSH and then exposed to...

...by all agents except 5' AMP and was prevented by theophylline. In other experiments AcCh was added to skins darkened with MSH, theophylline, DBCAMP, ATP, epinephrine, or isoproterenol. AcCh reversed only darkening induced by MSH. It is suggested that in melanocytes of AcCh responsive frog skin, AcCh may bind to the...

?

Set	Items	Description
S1	1883	(EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?
S2	6	S1 AND (ADRENALINE OR EPINEPHRINE OR L-EPINEPHRINE)
S3	6	RD (unique items)
?		
S S1 AND (HGF OR (HEPATOCYTE (W) GROWTH (W) FACTOR))		
	1883	S1
	12607	HGF
	79382	HEPATOCYTE
	2505607	GROWTH
	2498409	FACTOR
	15107	HEPATOCYTE(W) GROWTH(W) FACTOR
S4	19	S1 AND (HGF OR (HEPATOCYTE (W) GROWTH (W) FACTOR))

?

RD

...completed examining records

S5	6	RD (unique items)
----	---	-------------------

?

S S3 AND S5

	6	S3
	6	S5
S6	0	S3 AND S5

?

Set	Items	Description
S1	1883	(EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?
S2	6	S1 AND (ADRENALINE OR EPINEPHRINE OR L-EPINEPHRINE)
S3	6	RD (unique items)
S4	19	S1 AND (HGF OR (HEPATOCYTE (W) GROWTH (W) FACTOR))
S5	6	RD (unique items)
S6	0	S3 AND S5

?

COST

28feb05 10:06:45 User259876 Session D716.2

\$1.38	0.432 DialUnits	File155
\$0.21	1 Type(s) in Format	3
\$0.21	1 Types	
\$1.59	Estimated cost	File155
\$0.53	0.181 DialUnits	File159
\$0.53	Estimated cost	File159
\$2.73	0.475 DialUnits	File5
\$6.00	3 Type(s) in Format	3
\$6.00	3 Types	
\$8.73	Estimated cost	File5
\$3.89	0.366 DialUnits	File73
\$5.88	2 Type(s) in Format	3
\$5.88	2 Types	
\$9.77	Estimated cost	File73
	OneSearch, 4 files,	1.454 DialUnits FileOS
\$2.40	INTERNET	
\$23.02	Estimated cost this search	
\$23.88	Estimated total session cost	1.683 DialUnits

?

**Return to logon page!**

## Welcome to DialogClassic Web(tm)

Dialog level 04.20.00D  
Last logoff: 23feb05 16:37:51  
Logon file001 28feb05 09:58:20

## \*\*\* ANNOUNCEMENT \*\*\*

\*\*\*

--Important Notice to Freelance Authors--  
See HELP FREELANCE for more information

\*\*\*

## NEW FILES RELEASED

\*\*\*German Patents Fulltext (File 324)

\*\*\*Beilstein Abstracts (File 393)

\*\*\*Beilstein Facts (File 390)

\*\*\*Beilstein Reactions (File 391)

\*\*\*

## RELOADED

Medline (Files 154 &amp; 155)

\*\*\*

&gt;&gt;&gt; Enter BEGIN HOMEBASE for Dialog Announcements &lt;&lt;&lt;

&gt;&gt;&gt; of new databases, price changes, etc. &lt;&lt;&lt;

\*\*\*\*

KWIC is set to 50.

HIGHLIGHT set on as ' ' \* \* \*

File 1:ERIC 1966-2004/Jul 21

(c) format only 2004 The Dialog Corporation

Set Items Description

--- -----

Cost is in DialUnits

?

B 155, 159, 5, 73

28feb05 09:58:36 User259876 Session D716.1

\$0.80 0.228 DialUnits File1

\$0.80 Estimated cost File1

\$0.06 INTERNET

\$0.86 Estimated cost this search

\$0.86 Estimated total session cost 0.228 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1951-2005/Feb W4

(c) format only 2005 The Dialog Corp.

**\*File 155: Medline has been reloaded; accession numbers have changed.**

Please see HELP NEWS 154.

File 159:Cancerlit 1975-2002/Oct

(c) format only 2002 Dialog Corporation

**\*File 159: Cancerlit is no longer updating.**

Please see HELP NEWS159.

File 5:Biosis Previews(R) 1969-2005/Feb W3

(c) 2005 BIOSIS

**\*File 5: Price change effective Jan 1, 2005. Enter HELP RATES 5 for details.**

File 73:EMBASE 1974-2005/Feb W3

(c) 2005 Elsevier Science B.V.

**\*File 73: Price change effective Jan 1, 2005. Enter HELP RATES 73 for details.**

Set Items Description

--- -----

?

S (EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?

214631 EPIDERMAL

236619 CUTANEOUS  
 1037985 SKIN  
 36287 MELANOCYTE?  
 S1 1883 (EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?  
 ?  
 S S1 AND (ADRENALINE OR EPINEPHRINE OR L-EPINEPHRINE)  
 1883 S1  
 39528 ADRENALINE  
 125249 EPINEPHRINE  
 14 L-EPINEPHRINE  
 S2 6 S1 AND (ADRENALINE OR EPINEPHRINE OR L-EPINEPHRINE)  
 ?  
 RD  
 ...completed examining records  
 S3 6 RD (unique items)  
 ?  
 T S3/3,K/ALL

3/3,K/1 (Item 1 from file: 155)  
 DIALOG(R) File 155:MEDLINE(R)  
 (c) format only 2005 The Dialog Corp. All rts. reserv.

15414359 PMID: 15245435  
**Autocrine catecholamine biosynthesis and the beta-adrenoceptor signal promote pigmentation in human epidermal melanocytes**□.□  
 Gillbro Johanna M; Marles Lee K; Hibberts Nigel A; Schallreuter Karin U  
 Clinical and Experimental Dermatology, Department of Biomedical Sciences, University of Bradford, West Yorkshire, UK.  
 Journal of investigative dermatology (United States) Aug 2004, 123  
 (2) p346-53, ISSN 0022-202X Journal Code: 0426720  
 Publishing Model Print  
 Document type: Journal Article  
 Languages: ENGLISH  
 Main Citation Owner: NLM  
 Record type: MEDLINE; Completed

**Autocrine catecholamine biosynthesis and the beta-adrenoceptor signal promote pigmentation in human epidermal melanocytes**□.□  
 ...In this report, we show that human melanocytes also express all of the mRNA and enzymes for autocrine synthesis of norepinephrine but fail to produce **epinephrine**. So far, it was established that human melanocytes express alpha1-AR which are induced by norepinephrine yielding the inosine triphosphate diacylglycerol signal. The presence of...  
 ... receptors per cell) with a Bmax at 129.3 and a KD of 3.19 nM but lack beta1-AR expression. beta2-AR stimulation with **epinephrine** 10(-6) M and salbutamol 10(-6)-10(-5) M yielded a strong cyclic adenosine monophosphate (cAMP) response in association with upregulated melanin production. Taken together these results indicate that the biosynthesis and release of **epinephrine** (10(-6) M) by surrounding keratinocytes can provide the cAMP response leading to melanogenesis in melanocytes via the beta2-AR signal. Moreover, the discovery of...

3/3,K/2 (Item 1 from file: 5)  
 DIALOG(R) File 5:Biosis Previews(R)  
 (c) 2005 BIOSIS. All rts. reserv.

0015020233 BIOSIS NO.: 200400391022  
**Autocrine catecholamine biosynthesis and the beta2-adrenoceptor signal promote pigmentation in human epidermal melanocytes**  
 AUTHOR: Gillbro Johanna M; Marles Lee K; Hibberts Nigel A; Schallreuter Karin U (Reprint)  
 AUTHOR ADDRESS: Dept Biomed Sci, Univ Bradford, Bradford, W Yorkshire, BD7 1DP, England\*\*England  
 AUTHOR E-MAIL ADDRESS: k.schallreuter@bradford.ac.uk

JOURNAL: Journal of Investigative Dermatology 123 (2): p346-353 August  
2004 2004  
MEDIUM: print  
ISSN: 0022-202X (ISSN print)  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

**Autocrine catecholamine biosynthesis and the beta2-adrenoceptor signal  
promote pigmentation in human epidermal melanocytes**

...ABSTRACT: In this report, we show that human melanocytes also express all of the mRNA and enzymes for autocrine synthesis of norepinephrine but fail to produce **epinephrine**. So far, it was established that human melanocytes express alpha1-AR which are induced by norepinephrine yielding the inosine triphosphate diacylglycerol signal. The presence of ...

...receptors per cell) with a Bmax at 129.3 and a KD of 3.19 nM but lack beta1-AR expression. beta2-AR stimulation with **epinephrine** 10<sup>-6</sup> M and salbutamol 10<sup>-6</sup>-10<sup>-5</sup> M yielded a strong cyclic adenosine monophosphate (cAMP) response in association with upregulated melanin production. Taken together these results indicate that the biosynthesis and release of **epinephrine** (10<sup>-6</sup> M) by surrounding keratinocytes can provide the cAMP response leading to melanogenesis in melanocytes via the beta2-AR signal. Moreover, the discovery of...

DESCRIPTORS:

ORGANISMS: PARTS ETC: **epidermal melanocytes** --

3/3,K/3 (Item 2 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2005 BIOSIS. All rts. reserv.

0010996925 BIOSIS NO.: 199799630985

**Regulation of growth and melanogenesis of uveal melanocytes in vitro**

AUTHOR: Hu Dan-Ning (Reprint); McCormick Steven A

AUTHOR ADDRESS: New York Eye Ear Infirmary, New York, NY, USA\*\*USA

JOURNAL: Pigment Cell Research 10 (1-2): p119 1997 1997

CONFERENCE/MEETING: XVth International Pigment Cell Conference Anaheim, California, USA October 29-November 1, 1996; 19961029

ISSN: 0893-5785

DOCUMENT TYPE: Meeting; Meeting Abstract

RECORD TYPE: Citation

LANGUAGE: English

...REGISTRY NUMBERS: **EPINEPHRINE**

DESCRIPTORS:

CHEMICALS & BIOCHEMICALS: ... **EPINEPHRINE** ;

MISCELLANEOUS TERMS: ... **EPIDERMAL MELANOCYTES** ; **EPINEPHRINE** ;

3/3,K/4 (Item 3 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2005 BIOSIS. All rts. reserv.

0000482229 BIOSIS NO.: 197051078775

**ADRENERGIC CONTROL OF MELANOCYTES**

AUTHOR: MCGUIRE J

JOURNAL: Archives of Dermatology 101 (2): p173-180 1970

ISSN: 0003-987X

DOCUMENT TYPE: Article

RECORD TYPE: Citation

LANGUAGE: Unspecified

...REGISTRY NUMBERS: **EPINEPHRINE** ;  
DESCRIPTORS: FROG SKIN **MELANOCYTE** STIMULATING HORMONE ACTH MELATONIN  
HORMONE-DRUGS **EPINEPHRINE** ISOPROTERENOL PHENYLEPHRINE AUTONOMIC-DRUGS  
ADENYL CYCLASE CYCLIC AMP CAFFEINE METAB-DRUGS  
DESCRIPTORS:  
CHEMICALS & BIOCHEMICALS: ... **EPINEPHRINE** ;

3/3,K/5 (Item 1 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 2005 Elsevier Science B.V. All rts. reserv.

12713161 EMBASE No: 2004310872  
**Autocrine catecholamine biosynthesis and the betaSUB2- adrenoceptor  
signal promote pigmentation in human epidermal melanocytes**  
Gillbro J.M.; Marles L.K.; Hibberts N.A.; Schallreuter K.U.  
Prof. K.U. Schallreuter, Clin. and Experimental Dermatology, Department  
of Biomedical Sciences, University of Bradford, Bradford, West Yorkshire,  
BD7 1DP United Kingdom  
AUTHOR EMAIL: k.schallreuter@bradford.ac.uk  
Journal of Investigative Dermatology ( J. INVEST. DERMATOL. ) (United  
States) 2004, 123/2 (346-353)  
CODEN: JIDEA ISSN: 0022-202X  
DOCUMENT TYPE: Journal ; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 43

**Autocrine catecholamine biosynthesis and the betaSUB2- adrenoceptor  
signal promote pigmentation in human epidermal melanocytes**

...In this report, we show that human melanocytes also express all of the  
mRNA and enzymes for autocrine synthesis of norepinephrine but fail to  
produce **epinephrine**. So far, it was established that human melanocytes  
express alphaSUB1-AR which are induced by norepinephrine yielding the  
inosine triphosphate diacylglycerol signal. The presence of...

...receptors per cell) with a BSUBmax at 129.3 and a KSUBD of 3.19 nM but  
lack betaSUB1-AR expression. betaSUB2-AR stimulation with **epinephrine**  
10SUP-6 M and salbutamol 10SUP-6-10SUP-5 M yielded a strong cyclic  
adenosine monophosphate (cAMP) response in association with upregulated  
melanin production. Taken together these results indicate that the  
biosynthesis and release of **epinephrine** (10SUP-6 M) by surrounding  
keratinocytes can provide the cAMP response leading to melanogenesis in  
melanocytes via the betaSUB2-AR signal. Moreover, the discovery of...

3/3,K/6 (Item 2 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 2005 Elsevier Science B.V. All rts. reserv.

00250942 EMBASE No: 1975023201  
**The mechanism of frog skin lightening by acetylcholine**  
Moellmann G.; Lerner A.B.; Hendee Jr J.R.  
Dept. Dermatol., Yale Univ. Sch. Med., New Haven, Conn. 06510 United  
States  
General and Comparative Endocrinology ( GEN. COMP. ENDOCRINOL. ) 1974,  
23/1 (45-51)  
CODEN: GCENA  
DOCUMENT TYPE: Journal  
LANGUAGE: ENGLISH

...shown to diminish the MSH induced increase in cyclic AMP. To  
characterize the mode of action of acetylcholine (AcCh) as a lightening  
agent of frog skin **melanocytes**, AcCh responsive skins of Rana pipiens  
were darkened in vitro with MSH, lightened with AcCh in MSH solution,

## Welcome to DialogClassic Web(tm)

Dialog level 04.20.00D  
Last logoff: 28feb05 10:06:45  
Logon file001 28feb05 10:12:06  
KWIC is set to 50.  
HIGHLIGHT set on as ' ' ' '  
\* \* \*

File 1:ERIC 1966-2004/Jul 21  
(c) format only 2004 The Dialog Corporation

Set	Items	Description
-----	-------	-------------

Cost is in DialUnits

?

B 155,	159, 5, 73	
	28feb05 10:12:18 User259876 Session D717.1	
	\$0.33	0.094 DialUnits File1
\$0.33	Estimated cost	File1
\$0.05	INTERNET	
\$0.38	Estimated cost	this search
\$0.38	Estimated total session cost	0.094 DialUnits

SYSTEM:OS - DIALOG OneSearch

File 155:MEDLINE(R) 1951-2005/Feb W4

(c) format only 2005 The Dialog Corp.

**\*File 155: Medline has been reloaded; accession numbers have changed.**

Please see HELP NEWS 154.

File 159:Cancerlit 1975-2002/Oct

(c) format only 2002 Dialog Corporation

**\*File 159: Cancerlit is no longer updating.**

Please see HELP NEWS159.

File 5:Biosis Previews(R) 1969-2005/Feb W3

(c) 2005 BIOSIS

**\*File 5: Price change effective Jan 1, 2005. Enter HELP RATES 5 for details.**

File 73:EMBASE 1974-2005/Feb W3

(c) 2005 Elsevier Science B.V.

**\*File 73: Price change effective Jan 1, 2005. Enter HELP RATES 73 for details.**

Set	Items	Description
-----	-------	-------------

--- -----

?

S (EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?

214631 EPIDERMAL

236619 CUTANEOUS

1037985 SKIN

36287 MELANOCYTE?

S1 1883 (EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?

?

S S1 AND (HGF OR (HEPATOCYTE (W) GROWTH (W) FACTOR))

1883 S1

12607 HGF

79382 HEPATOCYTE

2505607 GROWTH

2498409 FACTOR

15107 HEPATOCYTE (W) GROWTH (W) FACTOR

S2 19 S1 AND (HGF OR (HEPATOCYTE (W) GROWTH (W) FACTOR))

?

RD

...completed examining records

S3 6 RD (unique items)

?

T S3/3,K/ALL

3/3,K/1 (Item 1 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 The Dialog Corp. All rts. reserv.

17282145 PMID: 15649147

**Role of keratinocyte-derived factors involved in regulating the proliferation and differentiation of mammalian epidermal melanocytes**□.□

Hirobe Tomohisa

Radiation Hazards Research Group, National Institute of Radiological Sciences, Anagawa, Inage-ku, Chiba, Japan. thirobe@nirs.go.jp

Pigment cell research / sponsored by the European Society for Pigment Cell Research and the International Pigment Cell Society (Denmark) Feb 2005, 18 (1) p2-12, ISSN 0893-5785 Journal Code: 8800247

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: In Process

**Role of keratinocyte-derived factors involved in regulating the proliferation and differentiation of mammalian epidermal melanocytes**□.□

... TRP)-1 and TRP-2 as well as by melanosomes and dendrites are located mainly in the epidermis, dermis and hair bulb of the mammalian skin .

Melanocytes differentiate from melanoblasts, undifferentiated precursors, derived from embryonic neural crest cells. Because hair bulb melanocytes are derived from epidermal melanoblasts and melanocytes, the mechanism of the regulation of the proliferation and differentiation of **epidermal melanocytes** should be clarified. The regulation by the tissue environment, especially by keratinocytes is indispensable in addition to the regulation by genetic factors in melanocytes. Recent...

... Alpha-melanocyte-stimulating hormone, adrenocorticotrophic hormone, basic fibroblast growth factor, nerve growth factor, endothelins, granulocyte-macrophage colony-stimulating factor, steel factor, leukemia inhibitory factor and **hepatocyte growth factor** have been suggested to be the keratinocyte-derived factors and to regulate the proliferation and/or differentiation of mammalian **epidermal melanocytes** . Numerous factors may be produced in and released from keratinocytes and be involved in regulating the proliferation and differentiation of mammalian **epidermal melanocytes** through receptor-mediated signaling pathways.

3/3,K/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 The Dialog Corp. All rts. reserv.

13672602 PMID: 11312419

**Diffuse melanosis arising from metastatic melanoma: pathogenetic function of elevated melanocyte peptide growth factors.**

Bohm M; Schiller M; Nashan D; Stadler R; Luger T A; Metze D

Department of Dermatology, and the Ludwig Boltzmann Institute for Cell Biology and Immunobiology of the Skin, University of Munster, Germany.

Journal of the American Academy of Dermatology (United States) May 2001 , 44 (5) p747-54, ISSN 0190-9622 Journal Code: 7907132

Publishing Model Print

Document type: Case Reports; Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... patients with metastatic melanoma (n = 10), matched to the UICC stage of the affected patient. Hyperpigmented but otherwise apparently normal skin of the patient displayed **epidermal melanocyte hyperplasia**, increased melanogenesis, and dermal pigment stored in histiocytes and other

cells along with extracellular deposits. Blood levels of alpha-melanocyte stimulating hormone, **hepatocyte growth factor**, and endothelin-1 were significantly elevated in the affected patient. Aberrant production of these factors may not only be responsible for activation of the pigment...

; Adult; Case-Control Studies; Endothelin-1--blood--BL; Enzyme-Linked Immunosorbent Assay; Fatal Outcome; **Hepatocyte Growth Factor** --blood --BL; Humans; Immunohistochemistry; Melanoma--complications--CO; Melanoma --ultrastructure--UL; Melanosis--blood--BL; Skin Neoplasms--complications --CO; Skin Neoplasms--ultrastructure--UL

Chemical Name: Endothelin-1; Growth Substances; alpha-MSH; **Hepatocyte Growth Factor**

3/3,K/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 The Dialog Corp. All rts. reserv.

13071597 PMID: 11041362

**Regulation of growth and melanogenesis of uveal melanocytes.**

Hu D N

Tissue Culture Center, Department of Pathology and Laboratory Medicine, The New York Eye and Ear Infirmary, New York 10003, USA. dhu@nyee.edu

Pigment cell research / sponsored by the European Society for Pigment Cell Research and the International Pigment Cell Society (DENMARK) 2000, 13 Suppl 8 p81-6, ISSN 0893-5785 Journal Code: 8800247

Publishing Model Print

Document type: Lectures

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... presence of basic fibroblast growth factor (bFGF), cyclic adenosine monophosphate-elevating agents, and serum. Cultured UM respond to various factors. Certain growth factors (bFGF and **hepatocyte growth factor**, etc.), endothelin, adrenergic beta2-receptor agonists, and some prostaglandins (EP2-receptor agonists and certain TP-receptor agonists) stimulate, while transforming growth factor-beta2, interleukin-6...

... usually do not respond (proliferate or show dynamic changes in melanogenesis) to various environmental factors. The differences of the in vivo behavior between uveal and **epidermal melanocytes** may be determined by both cellular factors and environmental factors.

3/3,K/4 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 The Dialog Corp. All rts. reserv.

11154397 PMID: 7585556

**Invasion of selectively permeable sea urchin embryo basement membranes by metastatic tumor cells, but not by their normal counterparts.**

Livant D L; Linn S; Markwart S; Shuster J

Department of Anatomy and Cell Biology, University of Michigan, Ann Arbor 48109-0616, USA.

Cancer research (UNITED STATES) Nov 1 1995, 55 (21) p5085-93, ISSN 0008-5472 Journal Code: 2984705R

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

... squamous cell carcinoma, which later metastasized, invaded these substrates. As expected, neonatal melanocytes, keratinocytes, and fibroblasts failed to invade; however, melanocytes treated with scatter factor (**hepatocyte growth factor**) invaded as efficiently as



metastatic tumor cells. This suggests that the lack of invasion by **epidermal melanocytes** is not due to irreversible differentiation to a noninvasive phenotype. Invasion time courses showed that the metastatic cells tested reached their maximal invasion frequencies in...

...; Cell--pathology--PA; Carcinoma, Squamous Cell--secondary--SC; Extracellular Matrix--physiology--PH; Fibroblasts--cytology--CY; Fibroblasts--drug effects--DE; Fibrosarcoma--pathology--PA; Fibrosarcoma--secondary--SC; **Hepatocyte Growth Factor** --pharmacology--PD; Humans; Keratinocytes--cytology--CY; Keratinocytes--drug effects--DE; Melanocytes--cytology--CY; Melanocytes--drug effects--DE; Melanoma--pathology--PA; Melanoma--secondary--SC; Mice; Neoplasm...

Chemical Name: **Hepatocyte Growth Factor**

3/3,K/5 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2005 The Dialog Corp. All rts. reserv.

09553082 PMID: 1834243

**Hepatocyte growth factor : molecular structure and implications for a central role in liver regeneration.**

Matsumoto K; Nakamura T

Department of Biology, Faculty of Science, Kyushu University, Fukuoka, Japan.

Journal of gastroenterology and hepatology (AUSTRALIA) Sep-Oct 1991, 6 (5) p509-19, ISSN 0815-9319 Journal Code: 8607909

Publishing Model Print

Document type: Journal Article; Review; Review, Tutorial

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

**Hepatocyte growth factor : molecular structure and implications for a central role in liver regeneration.**

**Hepatocyte growth factor ( HGF )** is a most potent factor for mature parenchymal hepatocytes in primary culture and may act as a trigger for liver regeneration. We purified **HGF** from rat platelets to homogeneity and cloned both human and rat **HGF** cDNA. **HGF** is a heterodimer molecule composed of the 69 kDa alpha-subunit and the 34 kDa beta-subunit. **HGF** has no amino acid sequence homology with other known peptide growth factors and possesses the highest potential among known growth factors to stimulate proliferation of hepatocytes in primary culture. **HGF** is derived from a single chain precursor of 728 amino acid residues and the precursor is proteolytically processed to form a two-chain mature **HGF**. The alpha-subunit of **HGF** contains 4 kringle structures and **HGF** has a homology (38%) with plasmin. Biologically active recombinant human **HGF** could be expressed from COS-1 cells and CHO cells transfected with cloned cDNA. **HGF** activity and the **HGF** mRNA level are markedly increased in the liver following insult such as hepatitis, by the administration of hepatotoxins, ischaemia, physical damage and partial hepatectomy. Moreover, **HGF** mRNA is induced in the lung and kidney, in the presence of liver injury. In situ hybridization revealed that **HGF** -producing cells in liver are non-parenchymal liver cells, presumably Kupffer and sinusoidal endothelial cells. Therefore, **HGF** from neighbouring cells (Kupffer and sinusoidal endothelial cells) and distal organs (lung and kidney) may function as a trigger for liver regeneration by both a paracrine mechanism and an endocrine mechanism. **HGF** has mitogenic activity for renal tubular epithelial cells, **epidermal melanocytes** and keratinocytes as well as mature hepatocytes, and has the potential to promote cell migration for some epithelial cells, including normal human keratinocytes. Since cell growth and cell motility are relevant to tissue repair and embryogenesis, **HGF** may well have important roles in tissue repair and embryogenesis as well as in liver regeneration.

; Amino Acid Sequence; Animals; Base Sequence; Cloning, Molecular; Growth

Substances--physiology--PH; **Hepatocyte Growth Factor** ; Humans;  
 Molecular Sequence Data; Rats  
 Chemical Name: Growth Substances; **Hepatocyte Growth Factor**

3/3,K/6 (Item 6 from file: 155)  
 DIALOG(R) File 155:MEDLINE(R)  
 (c) format only 2005 The Dialog Corp. All rts. reserv.

09377461 PMID: 1708252

**Hepatocyte growth factor is a potent stimulator of human melanocyte DNA synthesis and growth.**

Matsumoto K; Tajima H; Nakamura T  
 Department of Biology, Faculty of Science, Kyushu University, Fukuoka, Japan.

Biochemical and biophysical research communications (UNITED STATES) Apr 15 1991, 176 (1) p45-51, ISSN 0006-291X Journal Code: 0372516

Publishing Model Print

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: MEDLINE; Completed

**Hepatocyte growth factor is a potent stimulator of human melanocyte DNA synthesis and growth.**

**Hepatocyte growth factor ( HGF )** is a potent mitogen for adult rat hepatocytes in primary culture. **HGF** stimulates growth and DNA synthesis of normal human **epidermal melanocytes** in culture. The maximal stimulation of DNA synthesis by 4.0-fold occurred with 10 ng/ml **HGF** . This stimulatory effect was additive with both acidic and basic fibroblast growth factors, while it was inhibited by transforming growth factor-beta 1. Melanocytes expressed a single class of specific, high-affinity receptors for **HGF** with a Kd of 22 pM and approximately 120 receptors/cell. Thus, **HGF** is a potent mitogen for normal human **epidermal melanocytes** .

...; Cells, Cultured; Deoxyuridine--metabolism--ME; Fibroblast Growth Factor 1--pharmacology--PD; Fibroblast Growth Factor 2--pharmacology--PD; Growth Substances--genetics--GE; Growth Substances--metabolism--ME; **Hepatocyte Growth Factor** ; Humans; Kinetics; Melanocytes--drug effects --DE; Melanocytes--physiology--PH; Receptors, Cell Surface--metabolism--ME ; Recombinant Proteins--pharmacology--PD; Transfection; Transforming Growth Factor beta--pharmacology--PD

Chemical Name: Growth Substances; Receptors, Cell Surface; Recombinant Proteins; Transforming Growth Factor beta; Fibroblast Growth Factor 2; Fibroblast Growth Factor 1; **Hepatocyte Growth Factor** ; Deoxyuridine ?

Set	Items	Description
S1	1883	(EPIDERMAL OR CUTANEOUS OR SKIN) (W) MELANOCYTE?
S2	19	S1 AND (HGF OR (HEPATOCYTE (W) GROWTH (W) FACTOR))
S3	6	RD (unique items)

?

COST

28feb05 10:17:10 User259876 Session D717.2  
 \$1.10 0.344 DialUnits File155  
 \$1.26 6 Type(s) in Format 3  
 \$1.26 6 Types  
 \$2.36 Estimated cost File155  
 \$0.31 0.104 DialUnits File159  
 \$0.31 Estimated cost File159  
 \$1.66 0.289 DialUnits File5  
 \$1.66 Estimated cost File5  
 \$2.59 0.244 DialUnits File73  
 \$2.59 Estimated cost File73  
 OneSearch, 4 files, 0.981 DialUnits FileOS

\$1.33 INTERNET  
\$8.25 Estimated cost this search  
\$8.63 Estimated total session cost 1.075 DialUnits

**Return to logon page!**

**PALM INTRANET**

Day : Monday  
Date: 2/28/2005  
Time: 09:36:50

## Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.  
Additionally, enter the **first few letters** of the Inventor's First name.

**Last Name****First Name**

To go back use Back button on your browser toolbar.

Back to [PALM](#) | [ASSIGNMENT](#) | [OASIS](#) | [Home page](#)

**PALM INTRANET**

---

Day : Monday  
Date: 2/28/2005  
Time: 09:36:50

## Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.  
Additionally, enter the **first few letters** of the Inventor's First name.

**Last Name****First Name**

To go back use Back button on your browser toolbar.

Back to [PALM](#) | [ASSIGNMENT](#) | [OASIS](#) | [Home page](#)